238686

MAINTENANCE MANUAL

FM UNIVERSAL REPRODUCE CHANNEL "RC 9"

Specifications are subject to change due to contineous development

BELL & HOWELL

BELL & HOWELL DATATAPE DIVISION
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RC9 HM-E
1179

FM
Universal Reproduce Amplifier
"RC9"

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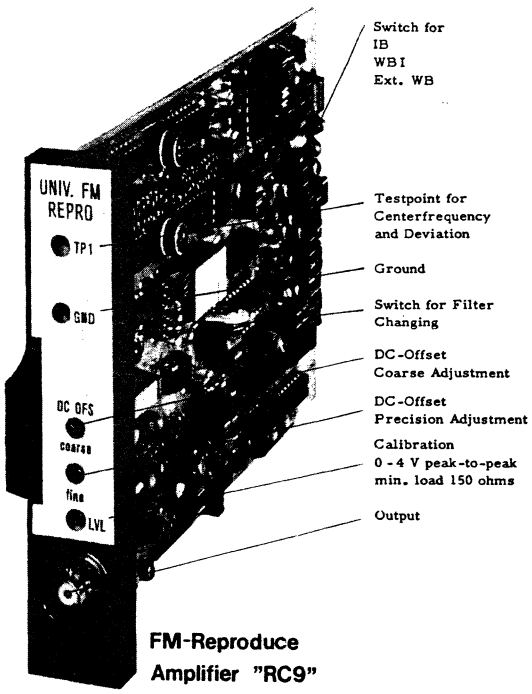
1. General Description of the FM Universal Reproduce Amplifier "RC 9"

This manual describes the Bell & Howell RC9 Universal FM Reproduce Amplifier and its application as a component in the overall magnetic tape record/reproduce system. In frequency modulation recording, the amplitude/time relationship of the data input signal is first converted to a frequency/time relationship and then recorded on magnetic tape. Its wider dynamic range capabilities result from the fact that a record of amplitude excursion is not restricted by the level at which magnetic saturation of the tape occurs. Additional benefits of this principle are improved linearity and relative freedom from dropouts. Low frequency response extending downward to dc is implicit, limited only by tape capstan stability.



FM-Reproduce Amplifier "RC9"

1. General Description of the FM Universal Record Amplifier "MC"

For FM recording the measurement data signal is transformed into a frequency-time signal prior to recording onto the data track of the magnetic tape unit. A voltage-controlled oscillator (VCO) is modulated in synchronization with the measured signal. The resulting carrier-frequency signal is then transferred to the magnetic tape via the record head.

This track, magnetized in synchronization with the carrier and its frequency modulation is read by the reproduce head. The voltage induced in the reproduce head is amplified and output. This signal is subsequently de-modulated, the residual carrier suppressed by filters, and the signal passed to the output.

This procedure allows a broad dynamic range since the amplitude limits are not determined by the saturation of the magnetic tape.
Additional advantages include:
linearity, which is determined predominantly by the modulator and demodulator;
lesser number of interruptions due to magnetic head contact problems (dropouts);
expansion of the frequency band being transmitted to include low frequencies down to d.c. whose stable transmission is determined by the stability of the tape deck and of the capstan rpm (band flutter).

1-2. PERFORMANCE CHARACTERISTICS

Typical performance characteristics for the Bell & Howell RC9 FM Reproduce Amplifier are given in table 1-1.

ITEM	CHARACTERISTIC
Input Soucre	Reproduce head preamplifier.
Output Level	4 volts peak-to-peak into 150 ohms.
Output Impedance	Less than 0.5 ohms
Response Characteristics	Switch selectable for flat amplitude or optimum transient response. a. Flat amplitude: Frequency response flat within +0.3 -0.5 db from dc to cutoff. Less than 14% overshoot for a step function input. b. Transient: Frequency response flat within +0.5 db and -3 db. Less than 6% overshoot and 1% pre-ring for a step function input.
DC Linearity	±0.5% of full deviation (±40%) from best straight line through zero.
DC Offset	±2 V coarse (intervall) fine (front adjustable)
Squelch	output signal only with tape in phase lock
Operating Temerature	0°...50°C
Power Input	+15 V 90 mA from regular -15 V 40 mA power supply + 5 V 30 mA

Center frequency and Bandwidth

	TapeSpeed ips	TapeSpeed cm/s	Center Frequency kHz	Bandwidth Hz	SNR dB
	120	304,80	216	0...40000	50
	60	152,40	108	0...20000	50
Intermediate	30	76,20	54	0...10000	49
Band	15	38,10	27	0... 5000	48
(IB- or WB-	7 1/2	19,05	13,5	0... 2500	47
Heads)	3 3/4	9,52	6,75	0... 1250	46
	1 7/8	4,76	3,375	0... 625	45
	15/16	2,38	1,687	0... 312	43
Wide Band 1	120	304,80	432	0...80000	49
(IB- or WB-	60	152,40	216	0...40000	49
Heads)	30	76,20	108	0...20000	48
	15	38,10	54	0...10000	47
	7 1/2	19,05	27	0... 5000	46
	3 3/4	9,52	13,5	0... 2500	45
Frequenz-	1 7/8	4,76	6,75	0... 1250	44
transiormation	15/16	2,38	3,375	0... 625	43
354:1	15/32	1,19	1,687	0... 312	42
	60	152,40	432	0...80000	48
	30	76,20	216	0...40000	47
	15	36,10	108	0...20000	46
Extended	7 1/2	19,05	54	0...10000	45
Wide Band	3 3/4	9,52	27	0... 5000	44
(WB-Heads)	1 7/8	4,76	13,5	0... 2500	43
	15/16	2,38	6,75	0... 1250	42
	15/32	1,19	3,375	0... 625	40

a. Consider that there has to be selected the same operation mode at the record and reproduce amplifier. Therefore a switch (IB, WB, ext. WB) is placed on the circuit board of the RC9 amplifier. For operation mode selecting the amplifier has to be pulled out of the magnetic tape recorder. Before doing so, switch off the tape recorder completly.

b. The output level of the amplifier is already adjusted (LVL) to 1 volt RMS of a sine-wave signal. A peak of ±1,41 volts will be reached at the max. deviation (±40%) possible. Signals of any wave-shape fit to that deviation, but only within the relevant frequency range.

c. All output sensitivities which can be chosen at the record amplifier are transformed by the RC9 amplifier to 1 Vrms output. Is the sensitivity switch of the record amplifier turned into 1,41 position each signal will be recorded and reproduced without any transformation.

Notice:
If the output becomes a high offset-signal reaching over the positive or negative limit the cause will be a wrong position of the RC9 switch (IB, WB, ext. WB). In such a case choose the same mode for RC9 amplifier as the selected one on the record amplifier. Control also if the 0 volt line is correct.

SECTION II
INSTALLATION

2-1. GENERAL

This section contains the installation procedures for the RC9 Universal FM Reproduce Amplifier. If this is an initial installation, refer to Section V for calibration procedures.

2-2. AMPLIFIER CARD PREPARATION

Prior to installation, visually inspect the circuit card for input damange, loose parts, moisture, corrosion, dust, and for any other condition which may impair the life of the amplifier or otherwise degrade its performance. Ensure that the shield is in place. See Section V for repair and maintenance instructions before proceeding with repairs.

2-3. AMPLIFIER CARD INSTALLATION AND REMOVAL CAUTION

Turn system power OFF before installing or removing amplifier cards from the amplifier case assembly.
The FM Reproduce Amplifier circuit card is positioned by guide slots in the reproduce section of the amplifier case assembly. The reproduce section consists of the last seven positions. The amplifier circuits are numbered from left to right and correspond to channel numbers.

With the circuit card positioned in a guide slot, all electrical connections are completed when the connector end of the circuit card is mated with its respective connector on the amplifier mother board. The mother board is located in the amplifier case assembly.
The output is normally obtained through a BNC connector located on the lower front of the circuit card. The area immediately surrounding the BNC connector is color coded to identify the type of the circuid card. The FM reproduce amplifier is identified by a green color.
The amplifier card should be removed from the amplifier case assembly in the following manner. Using the black handle attached to the front panel, firmly pull the card forward until the connector pins clear the connector sokket and guide slots.

SECTION III
OPERATION

3. GENERAL

The FM reproduce amplifier is operational when the system is turned on. There are no operator controls or indicators for the FM reproduce amplifier; therefore, in operating the system, there are no adjustments or operating procedures necessary.

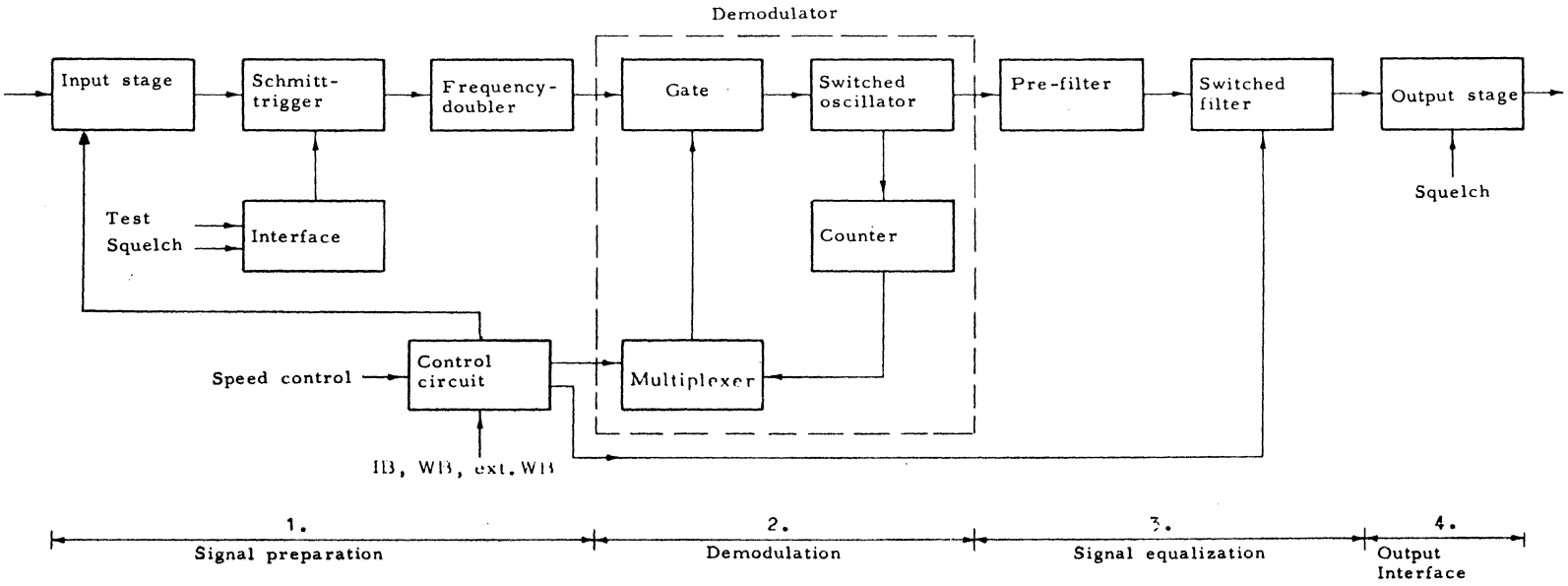


Fig. 1-1

Block Diagram of the
FM Universal Reproduce Amplifier
"RC9"

SECTION IV
THEORY OF OPERATION

4-1. GENERAL

Frequency modulation is a standard method of magnetic tape recording. Data is recorded on tape in the form of variations in frequency about a center carrier frequency. The amount of frequency deviation from the center is determined by the amplitude of the data signal. The rate at which the frequency to be recorded varies about the center is determined by the frequency of the data signal. At the positive excursion of the input data signal, the signal to be recorded will be of a higher frequency than the center frequency. At the negative excursion of the input data signal, the signal to be recorded will be of a lower frequency than the center frequency.

The function of the 9-Speed Universal FM Reproduce Amplifier is to recover the data by demodulating the signal recorded on the tape. Figure 1-1 is a block diagram of the RC9 circuitry.

4-2. EXPLANATION OF THE UNIVERSAL FM REPRODUCE AMPLIFIER

Figure 1-1 shows the block diagram of the Universal FM Amplifier. The amplifier consists of four sections. The first section, for signal conditioning, takes the input signal from the tape and amplifies it and equalizes the frequency response. In the demodulator section, the information signal is separated from the carrier frequency. In section three,erratic signals are filtered. Finally, the data signal is applied to the output by the output interface in section 4.

For optimum performance the following features are included: Center frequency filter switching by transport speed lines, switch control of filter characteristics, built-in test functions and transport controlled squelch.

After amplification in section one, the signal is applied to the input of the Schmitt-trigger. The output of the Schmitt-trigger is a square wave. Each level change of the squarewave corresponds to a zero crossing of the carrier. This signal is then applied to the input of a frequency doubler which produces the start signal for the switched oscillator. The oscillator has two outputs with different phases. The first of these signals is processed by filtering and the second signal is applied to the counter. The counter (IS 11) and switch (IS 10) are used to produce a stop signal for the oscillator. This results in the oscillator producing a pulse chain in which the pulse/rate is determined by the transport speed.

The pulse train is reproduced at each zero crossing of the input signal. The repetition rate of the pulse trains is determined by the carrier frequency. The average DC level is the modulation signal. With this method of recording, modulator stability depends only on the generator and remains equal at all tape speeds. The modulation signal includes a DC component which is removed in the final stage.

Harmonics are suppressed by a pre-filter to the switch able filter. The switchable filter is a four-pole active type. The filter cut-off frequencies are obtained by various resistors with filter characteristics being determined by capacitor values.

The output stage is a summing inverting operational amplifier with short circuit protection and will drive a 150 ohm load. In the squelch mode, the output stage is switched to a zero volt output level (T13 - T14). In the test mode, the Schmitt-trigger is switched off (T4).

4-3. DETAILED EXPLANATION OF FUNCTIONS

The input stage is designed with T1 and IS1. The differential input signal from the pre-amp of the tape recorder is amplified by IS1. The gain of IS1 is determined by IS2 which is switched by transport speed lines. To adapt the RC9 to various IB and WB head and pre-amp combinations, the gain is switched with S2b. POT R98 gives a fine adjustment of the output voltage at TP1 on the front panel (200mV p-p). A phase shifting circuit consisting of R53, IS3 and C18-C25 is used to compensate for phase distortion of the carrier in the head-tape system.

IS4 is a zero comparator switched as a Schmitt-trigger in this circuit. The hysteresis is about ±50 mV and is obtained by R56 and C27. Double or multiple pulses are thereby prevented in the zero axis crossing range. The output voltage is a square wave signal (0-15V) that is fed to the frequency doubler or-gate, IS5. At TP2, positive pulses with a pulse length of 120 nsec appear. The pulses are applied to flip-flop IS6 which acts as a gate circuit to apply trigger pulses to the input of the switched oscillator. Diode D13 and resistor R60 then function as level converters. The precision double mono-stable flip-flop IS12 requires TTL level.

The switched oscillator consists of two mono-stable flip-flops in IS12 connected in series. After passing the first time constant from R65 and C31 to the first mono-stable flip-flop, the second flip-flop is then started. After passing the second, the first is started again by feedback from IC12-13 to IC12-9. The oscillator continues as long as the release signal is valid at the gate circuit. Transistor T12 insures that the oscillator output voltage IS12-4 is a logical 1 state or 5 volts.

This compensates for level deviations in the TTL logic. IS13 is an impedance converter by which a two-pole low-pass filter is used as an input filter. The frequency is selected such that harmonic waves are effectively suppressed but the modulation signal reaches the switched filter input unreduced (fo = 160 kHz 3db).

The square wave signal coming from the gate circuit IS6-11 is de-integrated by R70 and C34, and the d.c. component is fed to the input filter R72 and R73. The output offset voltage can be adjusted with potentiometer R73 such that the difference in the offset voltage during speed changes is minimized.

The output voltage at the switched oscillator IS12-13 is connected to transistor, T 12 which acts as a level converter. IS11 und IS10 form a counter unit. IS11 is a binary counter. 2n input pulses to the unit will give an output signal.

A pulse pack is thus produced by the oscillator. The succeeding pulse depends on the momentary value of the modulation degree of the carrier frequency only. The average value of the pulse chains represent the basic modulation signal and a d.c. component. The input pre-filters primarily to suppress peak waves. The switched filter removes all remaining carriers. This switched filter is a four-pole active filter operating on the single positive feedback principle. The cut-off frequencies for various tape speeds are selected by four switching IC's, IS14, IS15, IS17 and IS18 which switch appropriate resistor values. The 4 FET-devices (T201,T202, T203 and T204) are switched only in the 80 kHz mode.

The high quality MOS-FET operational amplifiers,IS16 and IS19, are used as impedance converters which enable operation with voltages in the microvolt range.Filter characteristic selection for best flat or transient frequency response is capacitor controlled and is switched by IS20 which contains 4 switches. Figure 1-2 shows the major filter components.

The final amplifier stage is a summation amplifier circuit whith inverted output. The information signal from the filter and a compensation voltage from IS19 are summed in this amplifier. The information signal from the filter has an additional d.c. component resulting from the asymetric output voltage of the switched oscillator. The d.c. component can be either 0 or +5 V. IS21 acts as a voltage inverter for +5 from the d.c. power supply. The inverter output is then used to compensate for the d.c. component of the information signal. The d.c. voltage level of the inverter output can be adjusted using R79 (fine) and R80 (coarse). The d.c. level of the final output can be adjusted throughout the range with R79 and R80.

The final output stage consisting of IS22, T15, T16 is protected against short circuits with resistors R70, R71, R89 and R92. In the squelch mode, the T14 field effect transistor is through-connected by transistor T13 which gives zero amplification of the final amplifier.

The tape transport provides 9 speed-control lines, 8 of which operate at -15 V and one at +15 V. The encoder, IS7 is a CMOS that must be protected against negative voltages which are suppressed by diodes D1-D9.

The encoder produces binary coded information of the speed selected. Next, a full-adder,IS8 permits the use of three operating bands in binary one and two bit addition. The three bands are Intermediate Band (IB), Wide Band (WB) and Bell & Howell extended Wide Band (ext. WB).

The speed-control lines are also applied to IS9. The output provides speed information which controls switches IS3, phase shift, IS14 and IS6, filter switches. The operating band is selected by 52a. The combination of tape speeds and bands are limited. The circuit containing T7 and T8 is used to switch the demodulator and filters in the 80 kHz mode.

During the test function, +15 V is applied to the input of the card, pin P and the test signal from the recording amplifier is applied to pin 8. This signal is fed to the frequency-doubler through T8. The +15 V cuts off T4 and IS4 does not conduct.

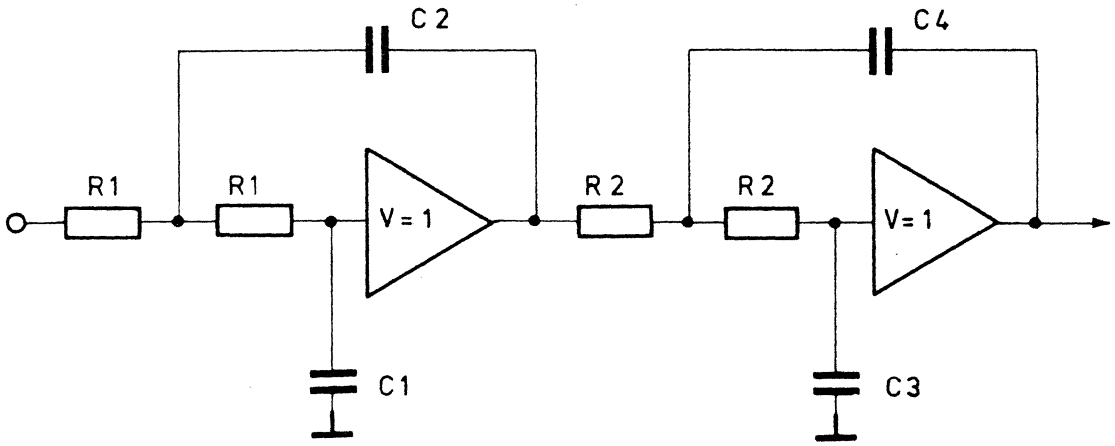
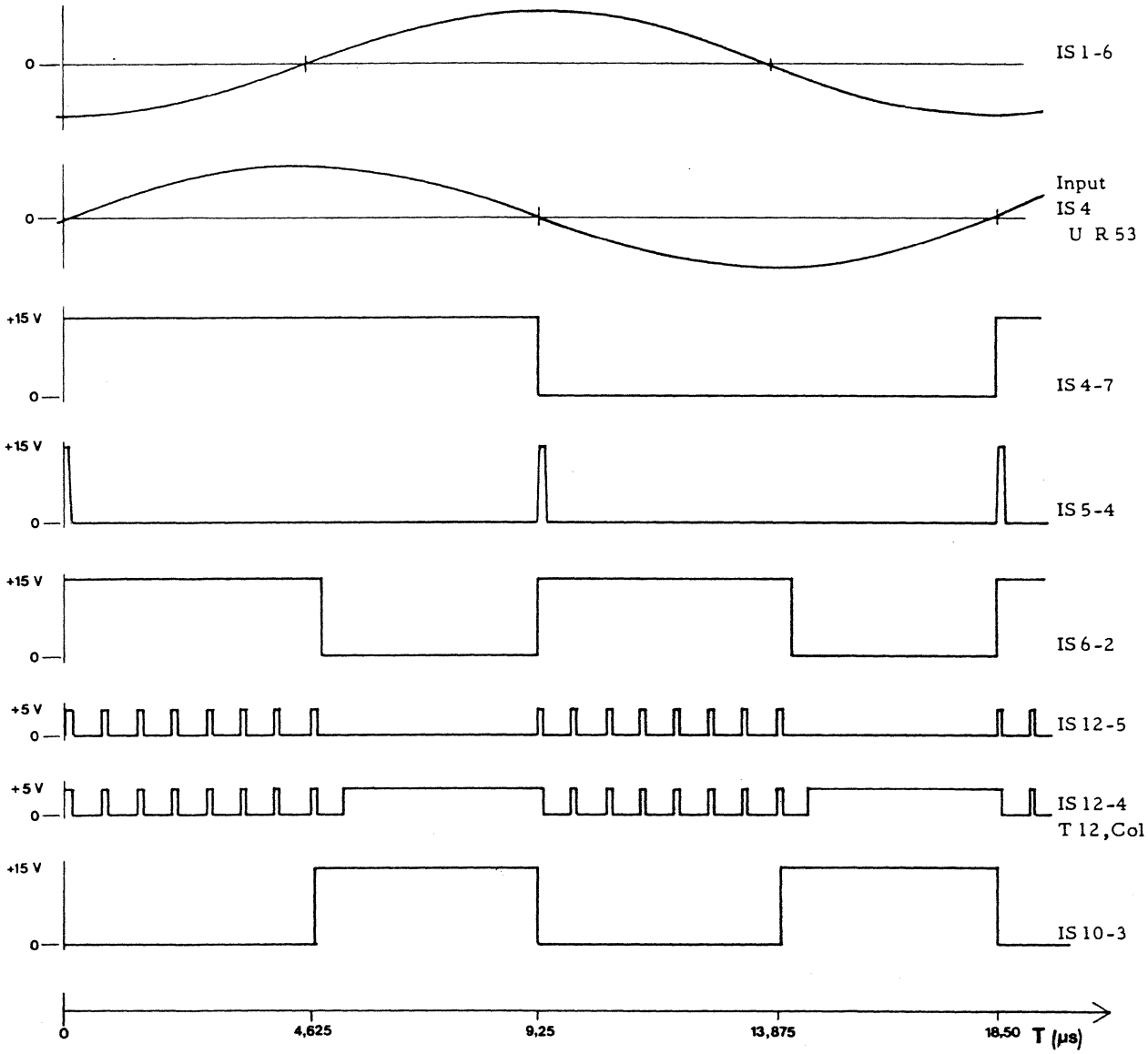
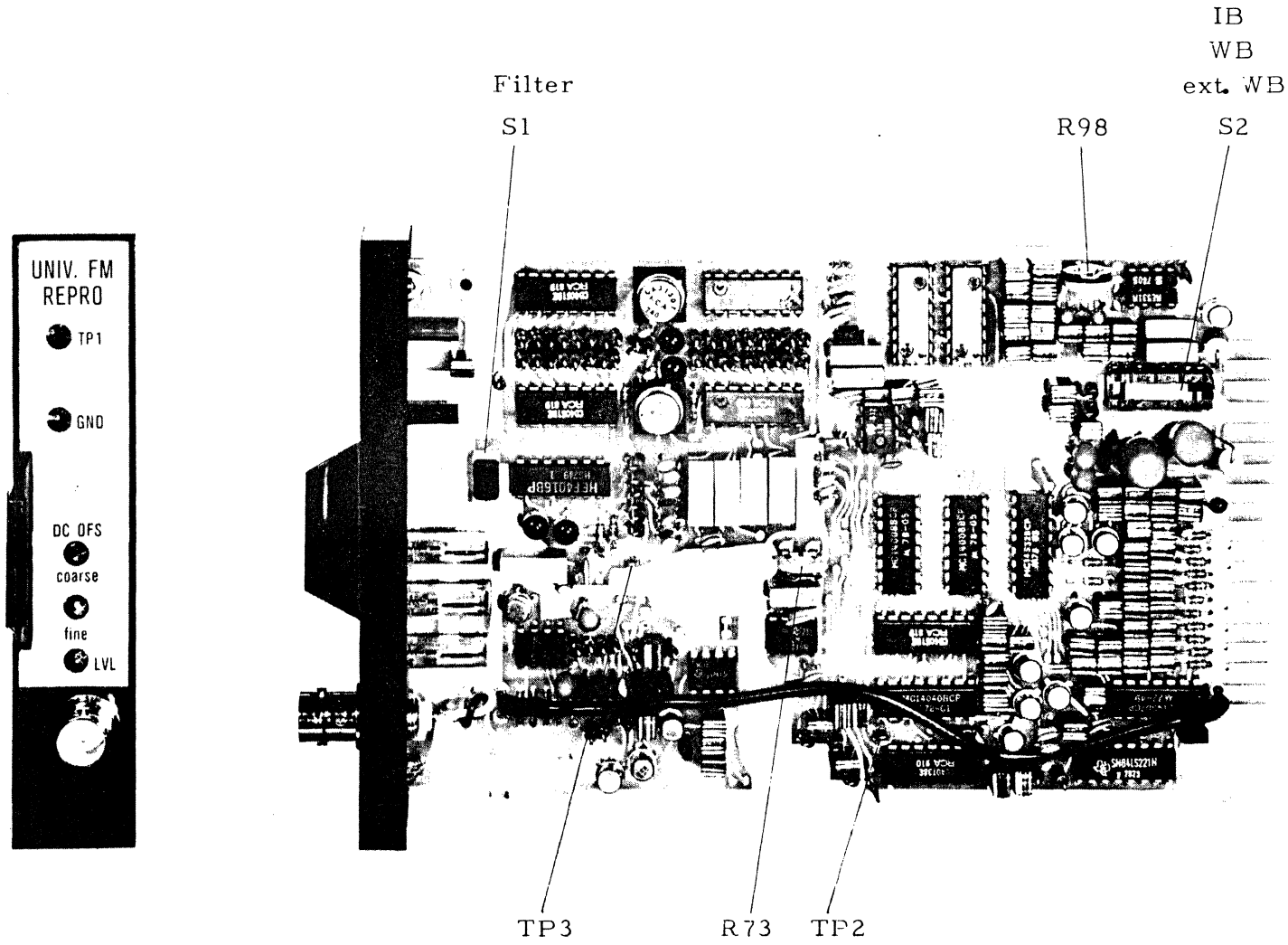


Fig 1-2 Filter

Data of Pulse Diagrams of the "RC9"	Centerfrequency (kHz)	T (µs)	Amount of Pulses
	432	2,3	1
	216	4,6	2
	108	9,3	4
	54	18,5	8
	27	37,0	16
	13,5	74	32
	6,75	148	64
	3,375	296	128
	1,687	593	256

Fig. 1-3
Example of a Pulse Diagram:
Intermediate Band
Tapespeed 30 ips
T = 18.5 µs





FM Universal Reproduce Amplifier "RC 9"
Location of Controls and Test Points

SECTION V
CALIBRATION AND MAINTENANCE

5-1. GENERAL

This section of the RC9 Universal Reproduce Amplifier manual is presented in three parts: preventive maintenance, calibration, and troubleshooting and corrective maintenance.

5-2. PREVENTIVE MAINTENANCE

Preventive maintenance consists of general cleaning and periodic inspection. Accumulation of dust, dirt, grit, and/or grease of the circuit boards is harmful and should be guarded against by periodic inspection and cleaning. Every six months, under normal laboratory conditions, inspect the units for signs of deterioration, loose connections, insecurity of mounting, and foreign matter. The period of cleaning depends on the particular operation environment and should be determined by inspection. As necessary, clean the circuit board with a soft brush and/or low pressure air or vacuum, or suitable solvent, being careful not to damage the printed circuitry.

5-3. CALIBRATION AND ADJUSTMENT OF THE UNIVERSAL FM CIRCUIT CARD

With the Universal FM card, calibration procedures have been simplified. To minimize distortion, recording head current must be adjusted properly. Each operating band (IB, WB and Extended WB) requires an individual head current adjustment for optimum performance. To perform this adjustment, check the signal at TP 1 using an oscilloscope and adjust headcurrent potentiometers R92 (Ext. WB), R93 (WB) or R94 (IB) for maximum output of the band being used. For final adjustment, a distortion meter is connected to the reproduce output and R92, R93 or R94 adjusted for minimum distortion.

After setting the exact head current, the input stage of the reproduce card must be adjusted. Position S2 for the desired operating band. Position RC9 on an extender card and connect an oscilloscope to TP1. Adjust R98 for 200 - 250 mV p-p at TP1. This level will be different for each operating band. For minimum distortion when operating in a particular band, R98 must be adjusted for that band.

The filter characteristic for best flat or transient response is selected by switch S1. Switch S2 is used to select the band operating mode for IB, WB or Extended WB.

The output guarantees an output voltage of approx. ±2 V across a load resistance of 150 ohms (±40 % modulation). With the potentiometers (R 87) any level can be set within this range. The zero level adjustment is done by potentiometers (R 79, R 81) fine and coarse.
It is posible to deviate the zero level between +2 V and -2 V. The speed-offset voltage is factory-adjusted by potentiometer R 73. Unless semiconductor components are replaced in the demodulator, re-adjustments are unnecessary.

5-4. REPAIR

Repair of the unit should be attempted only by personnel experienced in printed wiring techniques. Recommended repair is limited to the replacement of defective parts and adjustment of controls. When removing and replacing defective parts, care should be exercised so as not to damage surrounding components or the circuit board. Replacement parts must be of the correct type and value as listed in the parts list in Section VI. When installing a new part, place it in the exact position of the replaced part. After replacement, carefully inspect the circuit board for evidence of cold solder joints, solder splashes, and insecurity of mounting. If the equipment is repaired, the amplifiers should be checked and, if necessary, adjusted as described in adjustment procedures which are detailed in previous portions of this section.

5-5. PARTS IDENTIFICATION

Components of the RC9 Universal FM Reproduce Amplifier are illustrated in Section VI of this manual showing locations and part designations. The parts list in Section VI itemizes the component parts in the assembly and provides a Bell & Howell part number for each.

5-6. FIELD REPAIR SERVICE

Regular sheduled maintenance service is available from the Bell & Howell Instruments Division Sales and Service Office on a contract basis. If immediate service is required, it may be obtained on an emergency basis. Every effort is made to furnish the needed repair as soon as posible. For a complete description of Bell & Howell's maintenance service plans and their costs, contact the Instruments Division Sales and Service Office.

5-7. FACTORY REPAIR SERVICE

If desired, instruments (or major assemblies) may be returned to the factory for repair. When an instrument or assembly is returned:

a. Indicate the symptom of defect. State as completely as possible, both on an instrument tag and on the order form, the nature of the problem encountered. Too much information is far better than too little. If the trouble is intermittent, please be specific in describing the instrument's performance history.

b. Give special instructions. If any changes in the instrument or assembly have been made, and it is desired to retain the modified form, please indicate this specifically.

c. State the desired invoicing procedure. In the first correspondence, indicate whether repair work may begin immediately with billing in accordance with the standard pricing system or whether Bell & Howell should secure prior approval of the price before proceeding with the repair. The price will be the same in both cases, but any delay will be minimized by permission to start work immediately. The order acknowledgement copy will, of course, always show the price

d. Pack securely and label. Proper packaging saves money. The small amount of extra care and time it takes to cushion a part or instrument properly may prevent costly damage while in transit. Make certain that the adress is both legible and complete; failure to do so often results in needless delay. Address all shipments and correspondence to the Bell & Howell Instruments Division Subsidiary the equipment was delivered from; attention: Service Department.

e. Show return address on repair correspondence. Please indicate clearly the exact address to which the equipment should be returned after repair is completed. All shipping costs will be borne by the owner of the equipment, not by Bell & Howell.

SECTION VI
PARTS LISTS

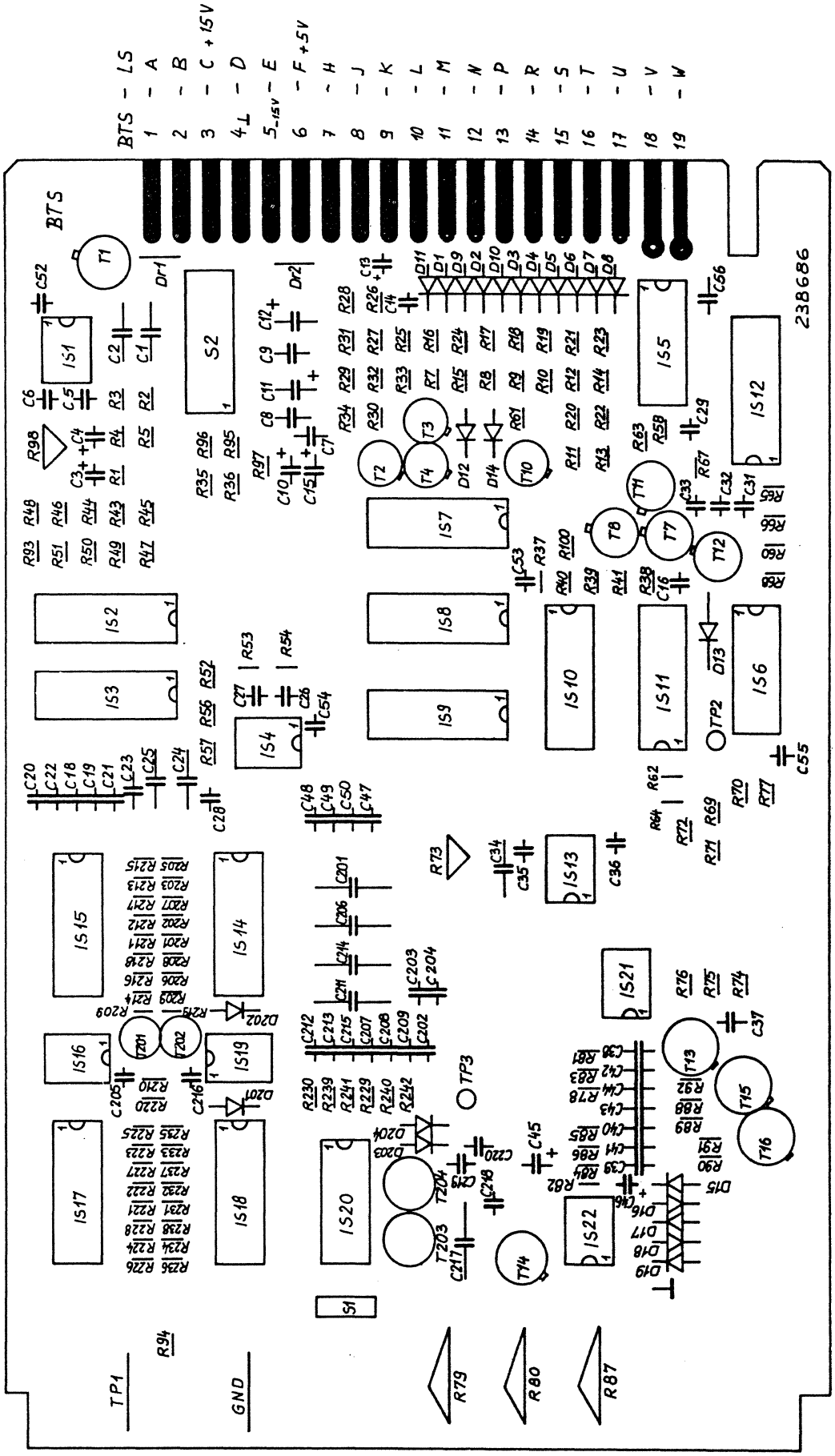
6-1. GENERAL

An appropriate parts list and illustration for the RC9 Universal FM Reproduce Amplifier follow the instructions given below. The parts list includes the Bell & Howell instruments Division part number, description, figure and index and/or schematic reference symbol, and where applicable, the manufacture's or military part number for each component.

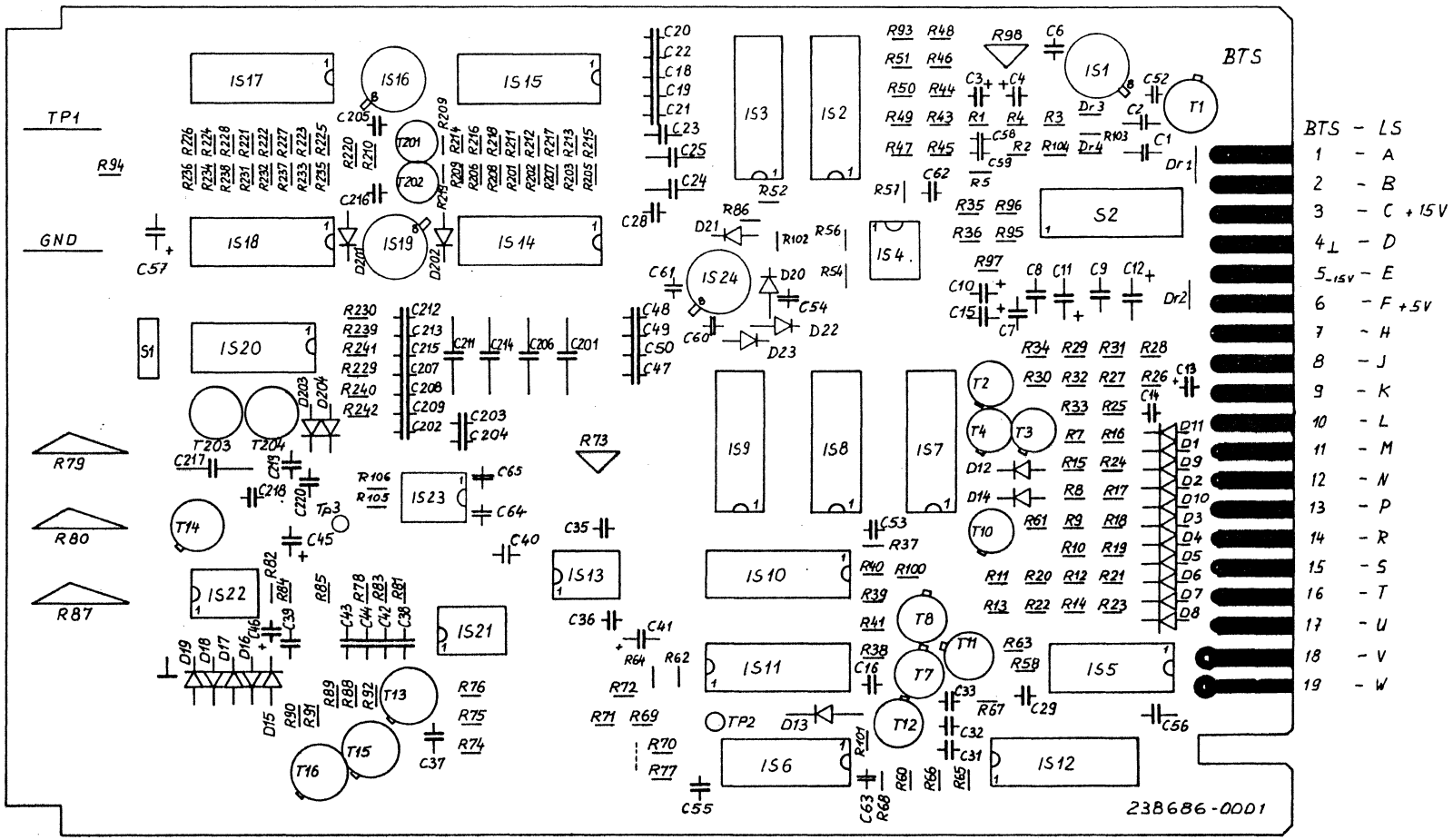
6-2. ORDERING REPLACEMENT PARTS

Parts should be ordered through the nearest Bell & Howell Instruments Division Sales and Service Office. Price and delivery information on parts or complete instruments may be obtained there also. To assist in making this contact, a list of Sales and Service Office is included in the front of this manual. Bell & Howell recommends that whenever possible, and particulary when an instrument is used in a critical application, the user maintain a minimum stock of spare parts. Instruments Division has specialized personnel ready to assist the user in making a selection of spares at any time. The same personnel are also ready and able to prepare or quote on the preparation of illustrated parts breakdowns (IPB's), provisioning parts breakdowns (PPB's) and other parts documentation that might be required. When ordering parts, the following information should always be supplied to the field office engineers:

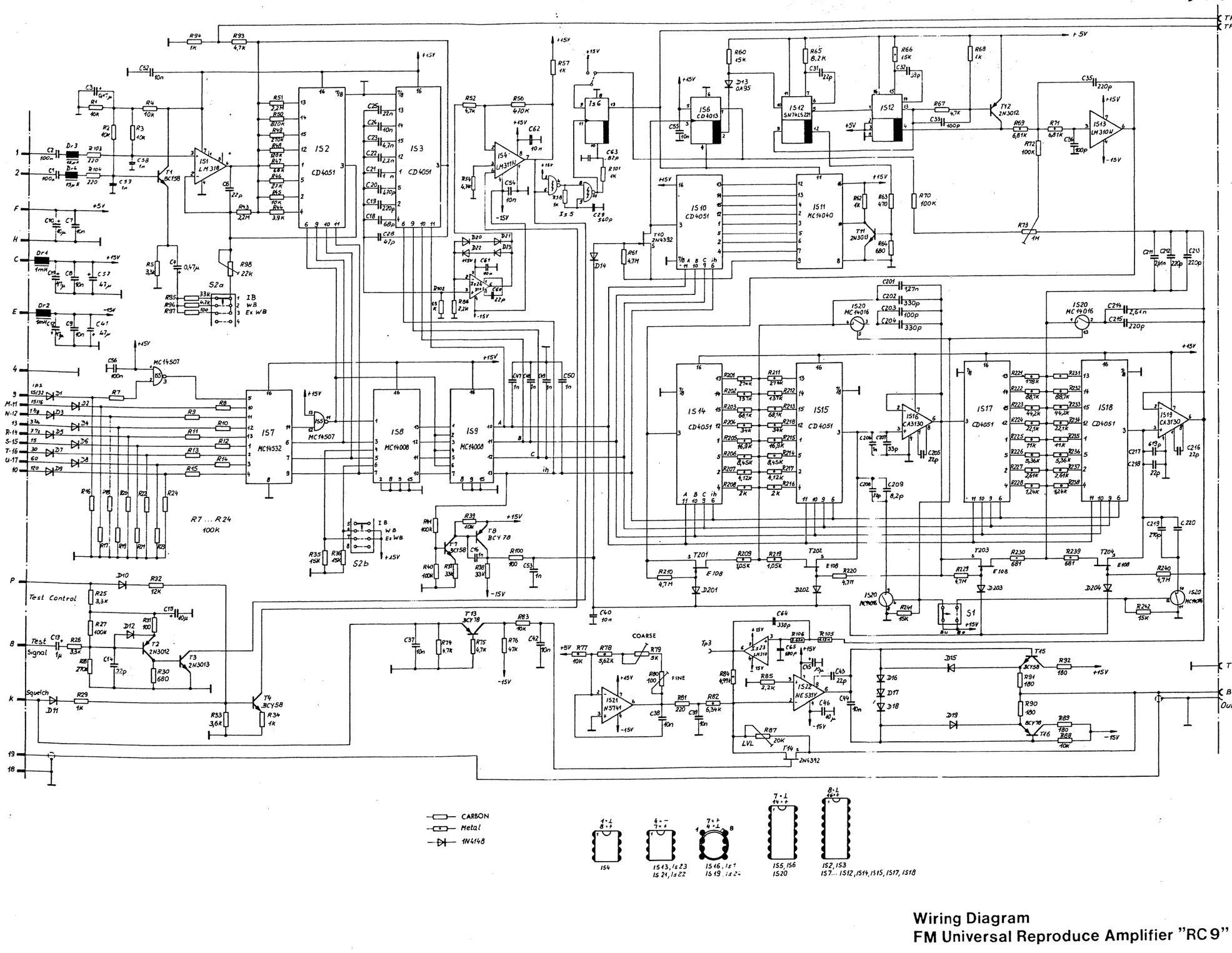
a. A description of the part or assembly, obtained from the parts list.
b. The Bell & Howell part or assembly number, also on the parts list, or on the component itself.
c. The figure and index, and/or reference symbol, given on the applicable diagram and on the parts list.
d. The part or type number of the major assembly, shown on the instrument nameplate.
e. The production serial number, also on the nameplate.
f. The Bell & Howell register number applying to the complete system or order.



Circuit Board
FM Universal Reproduce Amplifier "RC 9"



CIRCUIT BOARD
FM UNIVERSAL REPRODUCE AMPLIFIER "RC 9"



Wiring Diagram
FM Universal Reproduce Amplifier "RC 9"

Assembly Sequence	Symbol	B & H Part-No.			Part Description	Manu-facturer	DIN	Quantity
.1		238686-0100	BG	RC9	Front panel cpl.		N	1,000
..2		126732-0031	ST W 1 PO		BNC-socket KINGS KC-79-46	NEYE	N	1,000
..2		236987-	ME	LOES	loop 10,5		N	1,000
..2		238686-0110	ME	RC 9	front panel		N 4	1,000
..2		238687-0110	ME	.....	front panel		N 4	1,000
.1		238686-0300	BG	RC9	Printed circuit board		N	1,000
..2		236235-0003	ME		nut M 3		N 4	2,000
..2	T1	236281-	T	N	BCY 58 D	IT	N	1,000
..2	T15	236281-	T	N	BCY 58 D	IT	N	1,000
..2	T4	236281-	T	N	BCY 58 D	IT	N	1,000
..2	T7	236281-	T	N	BCY 58 D	IT	N	1,000
..2		236288-	KABL	1PO	RG U 174 KOAX	A	N	150,000
..2	R100	236490-0101	R	KO	100R SK2 0,25W 5%	RO/RE	N	1,000
..2	R31	236490-0101	R	KO	100R SK2 0,25W 5%	RO/RE	N	1,000
..2	R97	236490-0101	R	KO	100R SK2 0,25W 5%	RO/RE	N	1,000
..2	R29	236490-0102	R	KO	1K SK2 0,25W 5%	RO/RE	N	1,000
..2	R57	236490-0102	R	KO	1K SK2 0,25W 5%	RO/RE	N	1,000
..2	R62	236490-0102	R	KO	1K SK2 0,25W 5%	RO/RE	N	1,000
..2	R1-R4	236490-0103	R	KO	10K SK2 0,25W 5%	RO/RE	N	4,000
..2	R39	236490-0103	R	KO	10K SK2 0,25W 5%	RO/RE	N	1,000
..2	R83	236490-0103	R	KO	10K SK2 0,25W 5%	RO/RE	N	1,000
..2	R88	236490-0103	R	KO	10K SK2 0,25W 5%	RO/RE	N	1,000
..2	R10	236490-0104	R	KO	100K SK2 0,25W 5%	RO/RE	N	1,000
..2	R11	236490-0104	R	KO	100K SK2 0,25W 5%	RO/RE	N	1,000
..2	R12	236490-0104	R	KO	100K SK2 0,25W 5%	RO/RE	N	1,000
..2	R13	236490-0104	R	KO	100K SK2 0,25W 5%	RO/RE	N	1,000
..2	R14	236490-0104	R	KO	100K SK2 0,25W 5%	RO/RE	N	1,000
..2	R15	236490-0104	R	KO	100K SK2 0,25W 5%	RO/RE	N	1,000
..2	R16	236490-0104	R	KO	100K SK2 0,25W 5%	RO/RE	N	1,000
..2	R17	236490-0104	R	KO	100K SK2 0,25W 5%	RO/RE	N	1,000

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Assembly Sequence	Symbol	B & H Part-No.			Part Description		Manu-facturer	DIN	Quantity
..2	R18	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R19	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R20	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R21	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R22	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R23	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R24	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R27	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R40	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R41	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R7	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R8	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R9	236490-0104	R	KO	100K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R32	236490-0123	R	KO	12K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R48	236490-0124	R	KO	120K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R95	236490-0152	R	KO	1K5	SK2 0,25W 5%	RO/RE	N	1,000
..2	R241	236490-0153	R	KO	15K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R242	236490-0153	R	KO	15K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R35	236490-0153	R	KO	15K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R36	236490-0153	R	KO	15K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R45	236490-0153	R	KO	15K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R60	236490-0153	R	KO	15K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R89	236490-0181	R	KO	180R	SK2 0,25W 5%	RO/RE	N	1,000
..2	R90	236490-0181	R	KO	180R	SK2 0,25W 5%	RO/RE	N	1,000
..2	R91	236490-0181	R	KO	180R	SK2 0,25W 5%	RO/RE	N	1,000
..2	R92	236490-0181	R	KO	180R	SK2 0,25W 5%	RO/RE	N	1,000
..2	R81	236490-0221	R	KO	220R	SK2 0,25W 5%	RO/RE	N	1,000
..2	R94	236490-0221	R	KO	220R	SK2 0,25W 5%	RO/RE	N	1,000
..2	R85	236490-0222	R	KO	2K2	SK2 0,25W 5%	RO/RE	N	1,000
..2	R70	236490-0224	R	KO	220K	SK2 0,25W 5%	RO/RE	N	1,000

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Assembly Sequence	Symbol	B & H Part-No.			Part Description		Manu-facturer	DIN	Quantity
..2	R72	236490-0224	R	KO	220K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R43	236490-0225	R	KO	2M2	SK2 0,25W 5%	RO/RE	N	1,000
..2	R51	236490-0225	R	KO	2M2	SK2 0,25W 5%	RO/RE	N	1,000
..2	R55	236490-0225	R	KO	2M2	SK2 0,25W 5%	RO/RE	N	1,000
..2	R28	236490-0274	R	KO	270K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R49	236490-0274	R	KO	270K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R25	236490-0332	R	KO	3K3	SK2 0,25W 5%	RO/RE	N	1,000
..2	R26	236490-0332	R	KO	3K3	SK2 0,25W 5%	RO/RE	N	1,000
..2	R5	236490-0332	R	KO	3K3	SK2 0,25W 5%	RO/RE	N	1,000
..2	R37	236490-0333	R	KO	33K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R38	236490-0333	R	KO	33K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R46	236490-0333	R	KO	33K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R33	236490-0362	R	KO	3K6	SK2 0,25W 5%	RO/RE	N	1,000
..2	R63	236490-0471	R	KO	470R	SK2 0,25W 5%	RO/RE	N	1,000
..2	R52	236490-0472	R	KO	4K7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R54	236490-0472	R	KO	4K7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R67	236490-0472	R	KO	4K7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R74	236490-0472	R	KO	4K7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R75	236490-0472	R	KO	4K7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R86	236490-0472	R	KO	4K7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R93	236490-0472	R	KO	4K7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R95	236490-0472	R	KO	4K7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R76	236490-0473	R	KO	47K	SK2 0,25W 5%	RO/RE	N	1,000
..2	R210	236490-0475	R	KO	4M7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R220	236490-0475	R	KO	4M7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R229	236490-0475	R	KO	4M7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R240	236490-0475	R	KO	4M7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R61	236490-0475	R	KO	4M7	SK2 0,25W 5%	RO/RE	N	1,000
..2	R30	236490-0681	R	KO	680R	SK2 0,25W 5%	RO/RE	N	1,000
..2	R53	236490-0681	R	KO	680R	SK2 0,25W 5%	RO/RE	N	1,000

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Assembly Sequence	Symbol	B & H Part-No.			Part Description	Manu-facturer	DIN	Quantity
..2	R64	236490-0681	R	KO	680R SK2 0,25W 5%	RO/RE	N	1,000
..2	R44	236490-0682	R	KO	6K8 SK2 0,25W 5%	RO/RE	N	1,000
..2	R47	236490-0683	R	KO	68K SK2 0,25W 5%	RO/RE	N	1,000
..2	R50	236490-0684	R	KO	680K SK2 0,25W 5%	RO/RE	N	1,000
..2	C13	236493-	C	TA	1U ETP 35V RM 2,5	RO	N	1,000
..2	IS12	238654-0503	IC	DIG	SN74LS221N	Tx	N	1,000
..2	IS10	238654-0622	IC	DIG	CD4051BE	RC	N	1,000
..2	IS14	238654-0622	IC	DIG	CD4051BE	RC	N	1,000
..2	IS15	238654-0622	IC	DIG	CD4051BE	RC	N	1,000
..2	IS17	238654-0622	IC	DIG	CD4051BE	RC	N	1,000
..2	IS18	238654-0622	IC	DIG	CD4051BE	RC	N	1,000
..2	IS2	238654-0622	IC	DIG	CD4051BE	RC	N	1,000
..2	IS3	238654-0622	IC	DIG	CD4051BE	RC	N	1,000
..2	C11	238654-1840	C	TA	47U TAP 35V RM 5	IT	N	1,000
..2	C12	238654-1840	C	TA	47U TAP 35V RM 5	IT	N	1,000
..2	C57	238654-1840	C	TA	47U TAP 35V RM 5	IT	N	1,000
..2	D1-D9	238654-1956	D		1N 4148	IT/TX/V	N	9,000
..2	D10	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D11	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D12	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D14	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D15	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D16	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D17	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D18	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D19	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D201	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D202	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D203	238654-1956	D		1N 4148	IT/TX/V	N	1,000
..2	D204	238654-1956	D		1N 4148	IT/TX/V	N	1,000

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Assembly Sequence	Symbol	B & H Part-No.	Part Description	Manu-facturer	DIN	Quantity
..2	R98	238655-0603	PO CE 10K 0650-310	RU	N	1,000
..2	C22	238658-0657	C KE 3300P RDZ700 63V RM 2,5	RE	N	1,000
..2	C10	238658-0827	C TA 10U ETP 25V RM 2,5	RO	N	1,000
..2	C15	238658-0827	C TA 10U ETP 25V RM 2,5	RO	N	1,000
..2	C45	238658-0827	C TA 10U ETP 25V RM 2,5	RO	N	1,000
..2	C46	238658-0827	C TA 10U ETP 25V RM 2,5	RO	N	1,000
..2	C20	238658-0829	C KE 680P RDZ 63V RM 2,5	RE	N	1,000
..2	C3	238658-0920	C TA 0U47 ETP 35V RM 2,5	RO	N	1,000
..2	C4	238658-0920	C TA 0U47 ETP 35V RM 2,5	RO	N	1,000
..2		238685-	LP RC 9 Univ. reproduce amplifier		N	1,000
..2	S1	238686-0301	SCH SS SDC 1 LOETMA.FEST DIL 4	RECOM	N	1,000
..2	C23	238686-0303	C KE 6800P CK05BX682 100VRM5	RE	N	1,000
..2	C29	238686-0304	C KE 120P RD4 700 63V RM2,5	RE	N	1,000
..2	DR1	238687-0109	L 1MHY +-5% DR12.410	DEL	N	1,000
..2	DR2	238687-0109	L 1MHY +-5% DR12.410	DEL	N	1,000
..2	IS6	238687-0112	IC DIG MC14013CP /CD4013BE	MO/RC	N	1,000
..2	T13	239319-	T P BCY 78 D	IT	N	1,000
..2	T16	239319-	T P BCY 78 D	IT	N	1,000
..2	T8	239319-	T P BCY 78 D	IT	N	1,000
..2	TP2	239336-	ST M 1 PO NR.12610	GRO+HARTM	N	1,000
..2	TP3	239336-	ST M 1 PO NR.12610	GRO+HARTM	N	1,000
..2	C24	239374-	C FO 0U01 MKT 100V RM 7,5	RO	N	1,000
..2	TP4	239549-	ST W 1 PO 2-582-118-0 SCHWARZ	AMP	N	1,000
..2	TP1	239550-	ST W 1 PO 2-582-118-2 ROT	AMP	N	1,000
..2	IS21	239595-	IC ALG N5 741 V-CP-1	V	N	1,000
..2	C1	239712-	C FO 0U1 MKT 100V RM 7,5	RO	N	1,000
..2	C2	239712-	C FO 0U1 MKT 100V RM 7,5	RO	N	1,000
..2	C34	239712-	C FO 0U1 MKT 100V RM 7,5	RO	N	1,000
..2	S2	280035-	SCH SS DS16B2-4 M ABDECKH DIL 16	ADV	N	1,000
..2	IS4	280040-	IC ALG LM311 N 8PO	NSC	N	1,000

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Assembly Sequence	Symbol	B & H Part-No.			Part Description	Manu-facturer	DIN	Quantity
..2	IS5	280041-	IC	DIG	MC14507 CP	MO	N	1,000
..2	IS13	280044-	IC	ALG	LM310 N 8P0	NSC	N	1,000
..2	IS16	280045-	IC	ALG	CA 3130 T	RC	N	1,000
..2	IS19	280045-	IC	ALG	CA 3130 T	RC	N	1,000
..2	IS7	280047-	IC	DIG	MC14532 CP	MO	N	1,000
..2	IS8	280048-	IC	DIG	MC14008 CP	MO	N	1,000
..2	IS9	280048-	IC	DIG	MC14008 CP	MO	N	1,000
..2	IS11	280049-	IC	DIG	MC14040CP	MO	N	1,000
..2	IS20	280051-	IC	DIG	MC14016CP /CD40168E	MO/RC	N	1,000
..2	R77	280052-1003	R	MT	10K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R209	280052-1052	R	MT	1K05 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R219	280052-1052	R	MT	1K05 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R225	280052-1103	R	MT	11K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R235	280052-1103	R	MT	11K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R228	280052-1242	R	MT	1K24 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R238	280052-1242	R	MT	1K24 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R202	280052-1374	R	MT	137K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R212	280052-1374	R	MT	137K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R66	280052-1503	R	MT	15K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R205	280052-1693	R	MT	16K9 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R215	280052-1693	R	MT	16K9 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R221	280052-1784	R	MT	178K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R231	280052-1784	R	MT	178K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R208	280052-2002	R	MT	2K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R216	280052-2002	R	MT	2K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R224	280052-2213	R	MT	22K1 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R234	280052-2213	R	MT	22K1 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R227	280052-2612	R	MT	2K61 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R237	280052-2612	R	MT	2K61 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R201	280052-2744	R	MT	274K SMA0207 TK50 +-1%	DRA RE	N	1,000

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Assembly Sequence	Symbol	B & H Part-No.			Part Description	Manu-facturer	DIN	Quantity
..2	R211	280052-2744	R	MT	274K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R204	280052-3403	R	MT	34K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R218	280052-3403	R	MT	34K SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R207	280052-4122	R	MT	4K12 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R217	280052-4122	R	MT	4K12 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R223	280052-4423	R	MT	44K2 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R233	280052-4423	R	MT	44K2 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R84	280052-4992	R	MT	4K99 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R226	280052-5362	R	MT	5K36 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R236	280052-5362	R	MT	5K36 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R78	280052-5622	R	MT	5K62 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R82	280052-6342	R	MT	6K34 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R230	280052-6811	R	MT	681R SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R239	280052-6811	R	MT	681R SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R65	280052-6812	R	MT	6K81 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R69	280052-6812	R	MT	6K81 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R71	280052-6812	R	MT	6K81 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R203	280052-6813	R	MT	68K1 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R213	280052-6813	R	MT	68K1 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R206	280052-8452	R	MT	8K45 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R214	280052-8452	R	MT	8K45 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R222	280052-8873	R	MT	88K7 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R232	280052-8873	R	MT	88K7 SMA0207 TK50 +-1%	DRA RE	N	1,000
..2	R87	280053-	POAT	CE	20K 3009-P1-203	BOURNS	N	1,000
..2	C26	280056-	C	KE	10P ROC700 63V RM 215	RE	N	1,000
..2	C6	280056-	C	KE	10P ROC700 63V RM 215	RE	N	1,000
..2	C219	280057-	C	KE	270P ROU700 63V RM 2,5	RE	N	1,000
..2	C201	280058-	C	FO	1270P CKS-P-A-63V 1%	SCHUEMANN	N	1,000
..2	C19	280059-	C	KE	220P ROU700 63V RM 2,5	RE	N	1,000
..2	C212	280059-	C	KE	220P ROU700 63V RM 2,5	RE	N	1,000

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Assembly Sequence	Symbol	B & H Part-No.			Part Description	Manu-facturer	DIN	Quantity
..2	C213	280059-	C	KE	220P ROU700 63V RM 2,5	RE	N	1,000
..2	C215	280059-	C	KE	220P ROU700 63V RM 2,5	RE	N	1,000
..2	C28	280059-	C	KE	220P ROU700 63V RM 2,5	RE	N	1,000
..2	C35	280059-	C	KE	220P ROU700 63V RM 2,5	RE	N	1,000
..2	C211	280060-	C	FD	2610P CKS-P-A-63V 1%	SCHUEMANN	N	1,000
..2	C214	280060-	C	FD	2610P CKS-P-A-63V 1%	SCHUEMANN	N	1,000
..2	C37	280063-	C	KE	0001 RFD 600 32V RM 5	RE	N	1,000
..2	C38	280063-	C	KE	0001 RFD 600 32V RM 5	RE	N	1,000
..2	C39	280063-	C	KE	0001 RFD 600 32V RM 5	RE	N	1,000
..2	C40	280063-	C	KE	0001 RFD 600 32V RM 5	RE	N	1,000
..2	C41	280063-	C	KE	0001 RFD 600 32V RM 5	RE	N	1,000
..2	C42	280063-	C	KE	0001 RFD 600 32V RM 5	RE	N	1,000
..2	C44	280063-	C	KE	0001 RFD 600 32V RM 5	RE	N	1,000
..2	C7-C9	280063-	C	KE	0001 RFD 600 32V RM 5	RE	N	3,000
..2	C18	280067-	C	KE	100P ROU 63V RM 2,5	RE	N	1,000
..2	C203	280067-	C	KE	100P ROU 63V RM 2,5	RE	N	1,000
..2	C33	280067-	C	KE	100P ROU 63V RM 2,5	RE	N	1,000
..2	C36	280067-	C	KE	100P ROU 63V RM 2,5	RE	N	1,000
..2	C14	280069-	C	KE	22P ROC700 63V RM 2,5	RE	N	1,000
..2	C205	280069-	C	KE	22P ROC700 63V RM 2,5	RE	N	1,000
..2	C208	280069-	C	KE	22P ROC700 63V RM 2,5	RE	N	1,000
..2	C216	280069-	C	KE	22P ROC700 63V RM 2,5	RE	N	1,000
..2	C218	280069-	C	KE	22P ROC700 63V RM 2,5	RE	N	1,000
..2	C31	280069-	C	KE	22P ROC700 63V RM 2,5	RE	N	1,000
..2	C43	280069-	C	KE	22P ROC700 63V RM 2,5	RE	N	1,000
..2	C5	280069-	C	KE	22P ROC700 63V RM 2,5	RE	N	1,000
..2	C16	280071-	C	KE	1000P ROZ 63V RM 2,5	RE	N	1,000
..2	C47	280071-	C	KE	1000P ROZ 63V RM 2,5	RE	N	1,000
..2	C48	280071-	C	KE	1000P ROZ 63V RM 2,5	RE	N	1,000
..2	C49	280071-	C	KE	1000P ROZ 63V RM 2,5	RE	N	1,000

continued/...

Assembly Sequence	Symbol	B & H Part-No.			Part Description	Manu-facturer	DIN	Quantity
..2	C50	280071-	C	KE	1000P ROZ 63V RM 2,5	RE	N	1,000
..2	C53	280071-	C	KE	1000P ROZ 63V RM 2,5	RE	N	1,000
..2	C207	280074-	C	KE	33P ROP700 63V RM 2,5	RE	N	1,000
..2	C209	280076-	C	KE	8P2 ROC700 63V RM 2,5	RE	N	1,000
..2	T11	280077-	T	N	2N3013	TX-MO	N	1,000
..2	T3	280077-	T	N	2N3013	TX-MO	N	1,000
..2	T10	280079-	T	FET	2N4392	TX	N	1,000
..2	T14	280079-	T	FET	2N4392	TX	N	1,000
..2	D13	280081-	D		OA 95	V	N	1,000
..2	T12	280083-	T	P	2N3012	TX-MO	N	1,000
..2	T2	280083-	T	P	2N3012	TX-MO	N	1,000
..2	R73	280084-	POEW	KE	1M 0650-300 KO	RU	N	1,000
..2	R80	280085-	POAT	CE	100R 3009-P1-101	BOURNS	N	1,000
..2	R79	280086-	POAT	CE	5K 3009-P1-502	BOURNS	N	1,000
..2		280087-	ICSO	8 PO	look washerMON-8LN	SERMIN	N	2,000
..2	C25	280107-	C	FO	00022 MKT1819 100V	RO	N	1,000
..2	C21	280111-	C	KE	1500P ROZ 63V RM 2,5	RE	N	1,000
..2	IS1	280111-	IC	ALG	RC 4531 DN	RC	N	1,000
..2	IS22	280111-	IC	ALG	RC 4531 DN	RC	N	1,000
..2	C206	280129-	C	FO	100JP CKS-P-A-63V 1%	SCHUEMANN	N	1,000
..2	C217	280130-	C	FO	619P CKS-P-A-63V 1%	SCHUEMANN	N	1,000
..2	C202	280141-	C	KE	330P ROU 63V RM 2,5	RE	N	1,000
..2	C204	280141-	C	KE	330P ROU 63V RM 2,5	RE	N	1,000
..2	T201	280177-	T	FET	E 108	SILICONIX	N	1,000
..2	T202	280177-	T	FET	E 108	SILICONIX	N	1,000
..2	T203	280177-	T	FET	E 108	SILICONIX	N	1,000
..2	T204	280177-	T	FET	E 108	SILICONIX	N	1,000
..2	C52	280182-	C	KE	0001ROY700 63V RM 2,5	RE	N	1,000
..2	C54	280182-	C	KE	0001ROY700 63V RM 2,5	RE	N	1,000
..2	C55	280182-	C	KE	0001ROY700 63V RM 2,5	RE	N	1,000

Assembly Sequence	Symbol	B & H Part-No.			Part Description	Manu-facturer	DIN	Quantity
..2	C27	280184-	C	KE	4P7 R0C700 63V RM 2,5	RE	N	1,000
..2	C51	280202-	C	KE	0U1 CK05BX 104K 50V	RE	N	1,000
..2	C56	280202-	C	KE	0U1 CK05BX 104K 50V	RE	N	1,000
..2	C32	280203-	C	KE	39P P1R0C700 63V RM 2,5	RE	N	1,000
.1		238686-0400	BG	RC9	shielding compl.		N	1,000
..2		238289-	ME		screening plate		N 4	1,000
..2		238686-0401	ME	RC 9	plate		N 4	1,000
..2		280096-	ME		nut M 2		N	4,000